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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,370	12/21/2000	William J. LaBarge	DP-303157	8629

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EXAMINER

TRAN, HIEN THI

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/747,370	LABARGE ET AL.	
	Examiner	Art Unit	
	Hien Tran	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004 and 29 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 15-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 15-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/29/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 25 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 11-090226.

With respect to claim 1, JP 11-090226 discloses a catalyst substrate for use with a catalytic converter, comprising:

a catalyst substrate material comprising an inlet, an outlet, an opening for the passage of exhaust gas therethrough, and comprising a catalyst and zirconium phosphate (Fig. 1, abstract).

With respect to claims 2, 25, JP 11-090226 discloses that said zirconium phosphate is a layer disposed on at least part of said catalyst substrate material and a catalyst material, such as platinum, palladium and rhodium dispersed on the catalyst substrate containing zirconium phosphate (abstract).

Instant claims 1-2, 25 structurally read on the apparatus of JP 11-090226.

3. Claims 15-17, 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Deeba et al (6,375,910).

With respect to claims 15, 17, 20, 22, Deeba et al discloses a catalytic converter comprising: a substrate comprising cordierite (see, for example, col. 6, lines 37-40); a zirconium

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phosphate layer disposed on said substrate (see, for example, col. 8, lines 41-52); a catalyst layer containing noble metal, such as Pt, Pd, Rh, etc. disposed on said zirconium phosphate layer (see, for example, col. 7, lines 53-67); and a shell disposed around said substrate (see, for example, col. 18, lines 18-20).

With respect to claims 16, 21, Deeba et al discloses that the zones may further comprise components, such as zirconium (see, for example, col. 8, lines 53-57).

Instant claims 15-17, 20-22 structurally read on the apparatus of Deeba et al.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. The art area applicable to the instant invention is that of catalytic converter.

One of ordinary skill in this art is considered to have at least a B.S. degree, with additional education in the field and at least 5 years practical experience working in the art; is

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aware of the state of the art as shown by the references of record, to include those cited by applicants and the examiner (*ESSO Research & Engineering V Kahn & Co*, 183 USPQ 582 1974) and who is presumed to know something about the art apart from what references alone teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re Clinton* 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

7. Claims 3-6, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-090226 in view of Swaroop et al (5,447,694) and Cyron et al (5,116,681).

The apparatus of JP 11-090226 is substantially the same as that of the instant claims, but is silent as to whether a mat support material may be disposed between the substrate and the shell and concentrically around the substrate.

However, Swaroop et al and Cyron et al discloses the conventionality of providing a mat support material between the substrate and the shell and concentrically around the substrate.

It would have been obvious to one having ordinary skill in the art to provide a mat support material between the substrate and the shell and concentrically around the substrate as taught by Swaroop et al and Cyron et al in the apparatus of JP 11-090226 for thermal insulation benefit attendant therewith.

With respect to claims 5-6, JP 11-090226 discloses an exhaust system component, e.g. a connecting pipe secured to at least one end of the shell. Swaroop et al and Cyron et al disclose an exhaust system component, e.g. an end cone secured to at least one end of the shell.

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8. Claims 18-19, 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deeba et al (6,375,910).

The apparatus of Deeba et al is substantially the same as that of the instant claims, but fails to disclose the specific thickness of the zirconium phosphate layer as claimed.

However, the specific thickness of the zirconium phosphate layer is not considered to confer patentability to the claim. The precise thickness of the zirconium phosphate layer would have been considered a result effective variable by one having ordinary skill in the art. As such, without more, the claimed thickness of the zirconium phosphate layer can not be considered "critical". Accordingly, one having ordinary skill in the art would have routinely optimized the thickness of the zirconium phosphate layer in the system to obtain the desired purification thereof (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (*In re Aller*, 105 USPQ 233).

Response to Arguments

9. Applicant's arguments filed 9/27/04 have been fully considered but they are not persuasive.

Applicants' argument regarding the JP '226 is not persuasive as there is no evidence that the machine translation of JP '226 is more accurate than the Derwent abstract of JP '226 and therefore the examiner is still relying on the Derwent Abstract. Since the Derwent Abstract of JP '226 discloses all of the elements set forth in claims 1-2, it meets the instant claims.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hien Tran

HT
December 23, 2004

Hien Tran
Primary Examiner
Art Unit 1764